

AMENDMENTS TO THE CLAIMS

1. (currently amended). A screening method for identifying a methoxyphosphonate nucleotide analogue prodrug conferring enhanced activity in a target tissue comprising:
 - (a) providing a plurality of methoxyphosphonate nucleotide at least one of said prodrugs;
 - (b) selecting at least one therapeutic target tissue, which is known to be a site of viral latency or infection, and at least one non-target tissue, which wherein the target and non-target tissues are not the same tissue, and the target tissue does not include small intestine tissues;
 - (c) administering the each prodrug to the target tissue and to said at least one non-target tissue and non-target tissues, provided that said the tissues are not in a living human; and
 - (d) determining the relative antiviral [or antitumor] activity activities conferred by the prodrug prodrugs in the tissues in step (c) wherein the target tissue does not include small intestine; and
 - (e) selecting a desired prodrug based on its relative antiviral activity.

2. (canceled)

3. (canceled)

4. (currently amended) The method of claim 1 3 wherein the antiviral activity is anti-HIV (Human Immunodeficiency Virus) or anti-HBV (Hepatitis B Virus) activity.

5. (currently amended) The method of claim 1 wherein the desired prodrug is a prodrug of PMPA (9-[2-(phosphonomethoxy)propyl]adenine) or PMEA (9-[2-(phosphonomethoxy)ethyl]adenine).

6. (currently amended) The method of claim 5 wherein the desired prodrug is a phosphonoamidate, phosphonoester or mixed phosphonoamidate/phosphonoester.

7. (previously presented) The method of claim 6 wherein the phosphonoamidate or phosphonoamidate/phosphonoester is an amino acid amide.

8. (previously presented) The method of claim 6 wherein the ester is an aryl ester.

9. (currently amended) The method of claim 1 further comprising selecting a wherein the desired prodrug having has a relative activity in the target tissue that is greater than 10 times that of the non-target tissue.

10. (currently amended) The method of claim 1 wherein the target and non-target tissue tissues are in an animal, the each prodrug is administered to the animal[[],] and the relative activity is determined by analysis of the animal tissues after administration of the each prodrug.

11. (currently amended) The method of claim 1 wherein activity activities in the target and non-target tissues is are determined by assaying the amount of at least one metabolite of the each prodrug in the tissues.

12. (currently amended) The method of claim 11 wherein the at least one metabolite is the parental drug.

13. (currently amended) The method of claim 11 wherein the at least one metabolite is the diphosphate of the parental drug.

14. (canceled)

15. (currently amended) The method of claim 1 wherein the target tissue is lymphoid tissue and the antiviral activity is anti-HIV activity.

16. (currently amended) The method of claim 1 wherein the target tissue is liver and the antiviral activity is anti-HBV activity.

17. (canceled)

18. (canceled)